REMARKS

Reconsideration of this application is respectfully requested. Claims 18, 28, and 29 stand rejected under § 35 U.S.C. 112, second paragraph, due to insufficient antecedent basis for the limitations in these claim. Claims 1, 19, 20, and 30 stand rejected under 35 § U.S.C. 102(b) as being anticipated by U.S. Patent Application No. 5,455,958 to Flurry, et al ("Flurry"). Claims 2-5, 9, 11-15, 21-24, 27, 31 and 32 stand rejected under § 35 U.S.C. 103 (a) as being unpatentable over Flurry in view of U.S Patent No. 6,311,204 to Mills. Claim(s) 7-10, 16-18, 25, 26, 28 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1, 18, 19, 23, 28, 29, 30, and 32 have been amended. Claims 9 and 25 have been cancelled. New claims 33 and 34 have been added.

The Examiner has rejected claims 18, 28, and 29 under § 35 U.S.C. 112, second paragraph, due to insufficient antecedent basis for one or more limitations in these claims.

The Examiner states "Claim 18 recites the limitation "the graphics device" in line 2. There is insufficient antecedent basis for this limitation in the claim." Claim 18, as amended, states "the graphics-rendering engine."

The Examiner states "Claim 28 recites the limitation "the timing circuit" in line 2. There is insufficient antecedent basis for this limitation in the claim." Claim 28, as amended, states "a timing circuit."

The Examiner states "Claim 29 recites the limitation 'the timing circuit' in line 2. There is insufficient antecedent basis for this limitation in the claim." Claim 29, as amended, states "a timing circuit."

Applicants submit claim 18, as amended, claim 28, as amended, and claim 29, as amended, all overcome the above rejection.

The Examiner has rejected claims 1, 19, 20, and 30 under 35 § U.S.C. 102(b) as being anticipated by Flurry. The Examiner has rejected claims 2-5, 9, 11-15, 21-24, 27, 31 and 32 under § 35 U.S.C. 103 (a) as being unpatentable over Flurry in view of Mills. The examiner objected to claim(s) 7-10, 16-18, 25, 26, 28 and 29 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants respectfully assert that Flurry does not anticipate independent claim 1 under 35 U.S.C. § 102(b). Claim 1, as amended, includes the limitations formerly stated in objected claim 9. Claim 1, as amended, states:

> 1. An apparatus, comprising:
> a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices; and
> a time allocator to arbitrate the use of the graphics-rendering engine between the two or more independent images, wherein the time allocator comprises a first circuit to permit a graphics device instruction from a graphics application to direct the graphics-rendering engine to process instructions associated with a second independent image while waiting for an asynchronous event to occur for a first independent image.

(emphasis added)

Likewise, applicants respectfully submit that claim 1 is not obvious under 35 U.S.C. § 103(b) in view of Flurry and Mills. Flurry and Mills, individually and in combination, are silent regarding instructions from a graphics application directing a

graphics-rendering engine to process instructions associated with a second independent image while waiting for an asynchronous event to occur for a first independent image.

Therefore, independent claim 1 is patentably distinct over the combination of Flurry and Mills. Given that claims 2-8 and 10-18 depend from and include the limitations of independent claim 1, claims 2-8 and 10-18 also are patentably distinct over the combination of Flurry and Mills.

Applicants respectfully assert that Flurry does not anticipate independent claim 23 under 35 U.S.C. § 102(b). Claim 23, as amended, includes some of the limitations formerly stated in objected claim 25. Claim 23, as amended, states:

> 23. A method, comprising:
> concurrently rendering independent images for display on multiple display devices with a graphics-rendering engine;
> allocating time use of the graphics-rendering engine between each independent image being rendered;
> permitting, via a software instruction from a graphics application, the graphics-rendering engine to process instructions associated with a second image while waiting for an asynchronous event to occur to a first image; and
> storing in a memory area and restoring from the memory area a first rendering context associated with a first independent image.

(emphasis added)

Likewise, applicants respectfully submit that claim 23 is not obvious under 35 U.S.C. § 103(b) in view of Flurry and Mills. Flurry and Mills, individually and in combination, are silent regarding permitting, via a software instruction from a graphics application, a graphics-rendering engine to process instructions associated with a second image while waiting for an asynchronous event to occur to a first image.

Therefore, independent claim 23 is patentably distinct over the combination of Flurry and Mills. Given that claims 24 and 26-29 depend from and include the limitations of independent claim 23, claims 24 and 26-29 also are patentably distinct over the combination of Flurry and Mills.

Applicants respectfully assert that Flurry does not anticipate independent claim 19 under 35 U.S.C. § 102(b). Claim 19, as amended, states:

> 19. A method, comprising:
> using a single graphics-rendering engine to execute instructions associated with a first instruction-stream;
> concurrently rendering a first independent image via instructions associated with the first instruction-stream and a second independent image via instructions associated with a second instruction-stream by using the single graphics-rendering engine; and
> arbitrating the use of the single graphics-rendering engine between the instructions associated with the first instruction-stream and the instructions associated with the second instruction-stream with software instructions generated by a graphics application to direct the allocation of the graphics-rendering engine between the instructions associated with the first instruction-stream and the instructions associated with the second instruction-stream.

(emphasis added)

Likewise, applicants respectfully submit that claim 19 is not obvious under 35 U.S.C. § 103(b) in view of Flurry and Mills. Flurry and Mills, individually and in combination, are silent regarding arbitrating the use of the single graphics-rendering engine with software instructions generated by a graphics application to direct the allocation of the graphics-rendering engine between the instructions associated with the first instruction-stream and the instructions associated with the second instruction-stream.

Therefore, independent claim 19 is patentably distinct over the combination of Flurry and Mills. Given that claims 20-22 depend from and include the limitations of

independent claim 19, claims 20-22 also are patentably distinct over the combination of Flurry and Mills.

Applicants respectfully assert that Flurry does not anticipate independent claim 30 under 35 U.S.C. § 102(b). The examiner objected to the limitations stated in claims 8, 28, and 29. Claim 30, as amended, states:

> 30. A system, comprising:
> a central processing unit;
> a graphics device, the central processing unit coupled to the graphics device, the graphics device containing a graphics-rendering engine to concurrently render two or more independent images for display on multiple display devices, and
> a time allocator to arbitrate the use of the graphics-rendering engine between the two or more independent images, wherein the time allocator comprises a first circuit to track the period of elapsed time that a particular register uses the graphics-rendering engine, and a second circuit to convert the programmable elapsed period of time into an equivalent number of clock cycles.

(emphasis added)

Likewise, applicants respectfully submit that claim 30 is not obvious under 35 U.S.C. § 103(b) in view of Flurry and Mills. Flurry and Mills, individually and in combination, are silent regarding a circuit to track the period of elapsed time that a particular register uses the graphics-rendering engine, and a second circuit to convert the programmable elapsed period of time into an equivalent number of clock cycles.

Therefore, independent claim 30 is patentably distinct over the combination of Flurry and Mills. Given that claims 31-32 depend from and include the limitations of independent claim 30, claims 31-32 also are patentably distinct over the combination of Flurry and Mills.

Applicants respectfully assert that new claim 33 is patentably distinct over Flurry as well as Flurry in view of Mills. New claim 33 includes the limitations formerly stated in objected claim 10.

Applicants respectfully assert that new claim 34 is patentably distinct over Flurry as well as Flurry in view of Mills. New claim 34 includes the limitations formerly stated in objected claim 16.

Conclusion

It is respectfully submitted that in view of the amendments and remarks set forth herein, the rejections and objections have been overcome. An Information Disclosure Statement is also submitted with this amendment. Applicants reserve all rights with respect to the application of the doctrine equivalents. If there are any additional charges, please charge them to our Deposit Account No. 02-2666. Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,
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